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World Cooperation—Key to International Agricultural Stability

By Bob Bergland,
U.S. Secretary of Agriculture

The character of agriculture is changing and we need to develop mechanisms enabling the world to adjust more equitably to changing international situations, proposed Secretary Bergland before the Committee for Agriculture at the Ministerial Level Organization for Economic Cooperation and Development (OECD) in Paris on February 9.

Agriculture not only must deal with nature, it must deal with basic changes in the character of agriculture itself. Today, I would like to outline some of those changes in the context of an enlarged U.S. commitment toward greater stability in world agriculture and trade.

In the past year, the United States has moved toward policies that encourage stability and strengthened cooperation with other countries in the interest of stability. It has done this through:

- Domestic farm and food policies, such as a farmer reserve program looking toward the holding in farmers' hands of 25 million metric tons of grains.
- An increased willingness to support international commodity agreements wherever such proposals appear workable, practical, and not inimical to the U.S. market system.
- A more explicit concern for stability and progress in developing countries, leading to enlarged U.S. aid programs and greater U.S. participation in international organizations concerned with poor countries.
- A new impetus to the U.S. role in the Multilateral Trade Negotiations in Geneva, which we believe should set the pattern for stability in world trade for many years to come.

In all of these efforts, we should be aware of the sources of instability, some of which stem from changes in the farm economy itself. I should like to discuss five ways in which agricultural economies are changing—and some of the instabilities related to these changes.

Nations are more interdependent. This is a generalization that most of us will recognize. But, it is important to realize its full significance. Domestic and international agricultures are integrated economically and in other ways. Agriculture is a world economy, affected by new public concerns such as consumerism, environment, and the availability and cost of energy.

The U.S. farmer devotes almost 1 hectare in 3 to production for the world market. His products move out on trucks, rails, barges, and ships that are increasingly costly to operate and always susceptible to the actions of labor. Arriving in a foreign port, they are subject to scrutiny for wholesomeness by customers who are increasingly sensitive to health and environmental questions.

As communications advance, farmers become aware of consumer desires and complaints. Urban people become cognizant of the farmer's problems and needs. Both producers and consumers have the means to put their complaints into the public spotlight—as several thousand farmers proved to us in Washington a few weeks ago. In the marketplace, however, producers and consumers have moved further apart—less able than in the past to influence each other through the traditional interaction of economic forces.

Producers and consumers are at extreme ends of an elongating market chain. The farm-product component of food costs has become so small that most changes in producer prices have little effect on consumer prices. Thus, consumer purchases may respond very little to farm price changes that to the farmer may loom very large, so large as to threaten farm failure and bankruptcy.

In this respect, I think the agricultures of most developed countries are becoming more similar to agriculture in the United States. Last year, personal consumption expenditures for food in the United States were $218 billion. The farm

value of that food represented about 30 percent of the total. Last year, for the first time, total labor costs for marketing the foods that originate on U.S. farms actually exceeded the farm value of those foods.

Therefore, it takes a large percentage change in the farmer's price to have an effect on consumer demand. Since 1974, for example, farm prices in the United States have stabilized or fallen, but retail food prices have continued to increase. White bread prices rose 3 percent during that period in the face of a 38-percent decline in wheat prices. The result of all this is a new source of volatility in the farm economy.

Farmers are subject to costs they cannot control. Wherever agriculture is being modernized, this brings increased dependence on high cost capital goods. These large capital base changes bring an inflation of costs and place producers at the mercy of forces over which they have no control and to which they have inadequate means of adjustments.

In the days of horse and mule agriculture, U.S. farmers' costs were generated within the farm economy. Feeds and fertilizer were produced on the farm. Insecticides and herbicides were fewer and less expensive. Power was provided by man and animals. Farmers had a large measure of control over these inputs and their costs.

Today, farmers are dependent on the national credit system. They depend on the steelworkers, the truckers, the dockworkers. They depend on international forces such as the Organization of Petroleum Exporting Countries (OPEC). I suggest that this growing dependence on others is not exclusive with U.S. farmers, but is important in all countries.

It is an element of instability in the global farm economy. It is a fact that will require increased attention in the policies of the governments represented in OECD.

Developed countries have energy-intensive agricultures. Fuels, electricity, fertilizers, and other chemicals all take their toll in production costs and producer uncertainties. I would venture that every country represented in this room is fostering an agriculture that is increasingly energy-intensive—without adequate consideration to the ramifications of this fact. Certainly, the United States is no exception.

Energy is a critical concern to U.S. agriculture, not only because of cost, but because of uncertainties of supply. Natural gas has at times been in short supply, affecting propane and other fuels. Fertilizer supplies have caused concern. The only certainty is that energy prices will rise—in my country and yours.

Yet those farm enterprises that are most energy-intensive also may be the most vocal in calling for protection against imports. We should all think about this. We should wonder whether, in the case of the most energy-intensive commodities, it might not be better to consider certain phaseouts rather than new programs of border protection.

The agriculture sector is declining. To one degree or another, in every one of our countries, the producer sector is declining, at least in relative terms. In the United States, this means less farm strength in the Congress. I often point out to my fellow U.S. farmers that we are outnumbered in the House of Representatives, 400 to 35.

As a result, farm economies are more sensitive and food politics more volatile. Urban publics are sensitive to food prices and have the political muscle to pose a considerable threat. This caused the United States to impose its ill-fated price controls on meat in 1973, its ill-advised export restrictions on soybeans in 1973, and the informal temporary restraints on exports to some countries in 1974 and 1975.

Since food is so politically sensitive, national governments need to consider agricultural policies—both national and international—in a different context. In the long run, internal farm policies must be rational with respect to consumer wants and needs. Otherwise, these policies will find it very difficult to meet the inexorable test of time.

Given the nature of all these issues—these sources of instability—it seems to me that each of our governments comes down to a choice of possible alternatives:

- Every country can try to isolate itself from all sources of instability, both internal and external to the country.
- Or, we can look for ways in which international cooperation can be brought to bear on the problems of instability.

Assuming that our choice is the second one—international cooperation—then we have to consider how our national policies will affect the success of such efforts. In the United States, we have taken a number of steps to deal with the problems of price and supply that I have been discussing.

It seems that governments almost invariably react to short-run events. In doing this, they may, in fact, make the long run worse. Governments should be responsive, but not overreactive to short-term circumstances. We will continue to have ups and downs—shortfalls and overproduction—and should permit enough flexibility so that natural adjustments can occur.

In saying this, I recognize that the United States is not without fault. The 5-day soybean embargo in 1973 was a classic case of overreaction. We have suffered for it—probably more than have our customers. Since 1975, however, the United States performance has been much better, and it is determined to be a dependable supplier.

As a matter of fact, the United States has tended to absorb most of the vagaries of soybean production at home and has exported rather regularly increasing quantities year after year. During the past 20 years, U.S. soybean exported multiplied sevenfold, from slightly over 2 million tons to 16 million tons with a standard error only 800,000 tons from the trendline. The only reserve drop below the trendline happened in 1975, when no restrictions on soybean exports were in effect. In 1977, with soybean stocks at a low level, the United States resisted all pressures to restrict exports.

This year, with prospective grain carryovers at the highest levels in years, the United States has been very careful about reducing area, despite pressures to cut back plantings sharply. A 20-percent setaside for wheat and a conditional 10-percent setaside for coarse grains have been announced. Actual reductions will be less.

The United States has embarked on a farmer-owned, farmer-controlled, reserve program to place in reserve some 25 million tons of wheat, maize, sorghum, barley, and oats. However, in order to meet international obligations, we shall need smaller government-owned foodgrain reserves, that is wheat. We are working for the successful negotiations of a new International Wheat Agreement or Wheat Trade Convention and the extension of the Food Aid Convention. In this connection, we intend to ask the Congress to authorize a Government-owned reserve of at least 6 mil-

lion tons, with authority for more and with flexibility to use it as future commitments under the Agreement and Convention to be negotiated may require.

This farmer-owned, farmer-controlled, reserve program is being carried out under the Food and Agriculture Act of 1977, which was written to function within the U.S. market system and not to move toward Government management of agriculture. Despite price and income problems in agriculture, a higher-than-satisfactory unemployment level, and resulting political pressures, the United States is a market economy and will continue to depend basically on markets for adjustment.

Meanwhile, we would like to see other nations, both importing and exporting, assume a larger share of the responsibility for building and maintaining reserves. This is an ideal time, with supplies large and prices low, for individual nations to acquire stocks. At the same time, the proposed International Wheat Agreement provides the opportunity for nations to join in an internationally coordinated system of reserves.

The United States is eager to meet its responsibilities toward maintaining and improving the world agricultural economy. But as events of recent years have demonstrated, actions by individual nations or groups—each going its own way—cannot be effective in creating a strong global agriculture.

For this reason, we would like to see the developed nations take greater leadership toward this objective. One important contribution would be to encourage more flexibility in the formulation of internal agricultural policies—policies that, of course, have a significant effect on world food supplies.

Such flexibility has not always been demonstrated in the past. An example is the period of short world grain supplies during 1972-76, when there should have been a more universal shift away from feeding concentrates, both grains and protein feeds. This did occur in the United States, where coarse grain feeding was reduced by one-fourth while exports were reduced by only one-eighth.

Elsewhere, policies do not encourage this kind of response to changes in supply. An insufficiently flexible policy fails to send signals to the market. A supply-responsive price policy helps to mitigate more extreme fluctuations by discouraging heavy feeding of concentrates in times of short supply and encouraging it during times of abundant grain supplies, such as we are experiencing now.

With large parts of the OECD area not participating in such adjustments, the burden had tended to fall on the United States. In the United States, high grain prices following 1972 caused producers in a generally free market to reduce feeding and to market livestock at lighter weights. Now with grains in abundance, both U.S. grain and cattle producers are suffering from extremely low prices.

Meanwhile, the populations of developing countries also suffer from such ups and downs. In times of high grain prices, they are able to buy in the world market only at great sacrifice. In times of low grain prices, poor countries attempting to develop their own agricultures are handicapped by low-price competition flooding the world market.

Consequently, we need to develop mechanisms enabling the world to adjust more equitably to changing situations. Such mechanisms cannot be effective if only a few countries

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U.S. Wheat Exports To Latin America May Set Record in 1978

By Howard L. Hall

Record U.S. wheat exports to Latin America are in prospect for calendar 1978 in the wake of a sharp dropoff in Latin American wheat production last year along with the region's stronger overall economy and relaxed restrictions on wheat and food imports.

U.S. wheat sales to Latin American countries this year should rebound sharply from 1977's low level of 4.0 million metric tons and may reach as high as 6.5 million tons—topping the record 5.4 million shipped during 1973, a food crisis year. Total wheat imports by these countries point to a new high of about 9.0 million tons in 1978, while takings in 1977 almost reached the 1976 record of 7.7 million tons.

This bright trade outlook reflects smaller 1977 harvests in Argentina, Brazil, Chile, and Mexico, which normally account for more than 90 percent of the region's total wheat output. After trending up steadily to a record 19.6 million tons in 1976, Latin American wheat production plunged 59 percent to an estimated 11.5 million last year, the smallest harvest since that of 1973.

This decline resulted largely from a sharp production dropoff in Argentina—the region's major producer and exporter—where 1977's output plummeted 53 percent to 5.2 million tons.

Traditionally, Latin American wheat trade is subject to wide variations, but the current situation is unusual because of the larger production deficits anticipated in all of the important importing countries.

The U.S. wheat trade to Latin America also will be influenced by rising consumer demand stemming

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from improvements in the region's economy and trade. Unusually sharp increases in earnings from coffee and petroleum exports boosted the region's foreign exchange reserves to new highs in 1977, and the growing concern over rising prices has encouraged a relaxation of restrictions on imports of wheat and other food commodities in the major importing countries.

Despite anticipated adjustments to lower world coffee prices, the economic outlook remains favorable in most countries, with some easing of the serious economic crisis expected in Peru and the Caribbean countries. Last year, consumer price indexes rose sharply in Mexico, Central America, the Caribbean, and most Andean countries. Wheat imports in these areas will expand this year to meet strong consumer demand.

Although the region's imports are headed for a record year, wheat from Canada may not expand as much as might otherwise have been anticipated because of the reduced quantity and quality of the 1977 Canadian crop. As well, Argentina's export supplies are now estimated at about one-fourth of the nearly 6 million tons sold last year. Other Latin American countries are mainly exporters. These factors add up to bright prospects for a brisk recovery in the U.S. share of an expanded Latin American wheat market.

Brazil's 1978 wheat imports are forecast to jump from 3.1 million tons in 1977 to a record 4.0 million at least while Chile's requirements are expected to rise from 600,000 tons last year to about 1 million this year. Mexico's wheat purchases should increase from 500,000 to about 700,000 tons as Uruguay shifts from an export surplus to significant imports in 1978.

Domestic production is not a major factor in the wheat trade of other Latin American countries. With additional trade gains in Central America and a potential recovery in the Caribbean countries, wheat imports of the two areas could rise to about 900,000 tons, compared with 850,000 last year. Trade expansion in Peru may be limited, but wheat imports by other Andean countries—paced by gains in Bolivia, Colombia, Ecuador, and Venezuela—will continue to advance from 2.3 million tons last year to about 2.5 million this year.

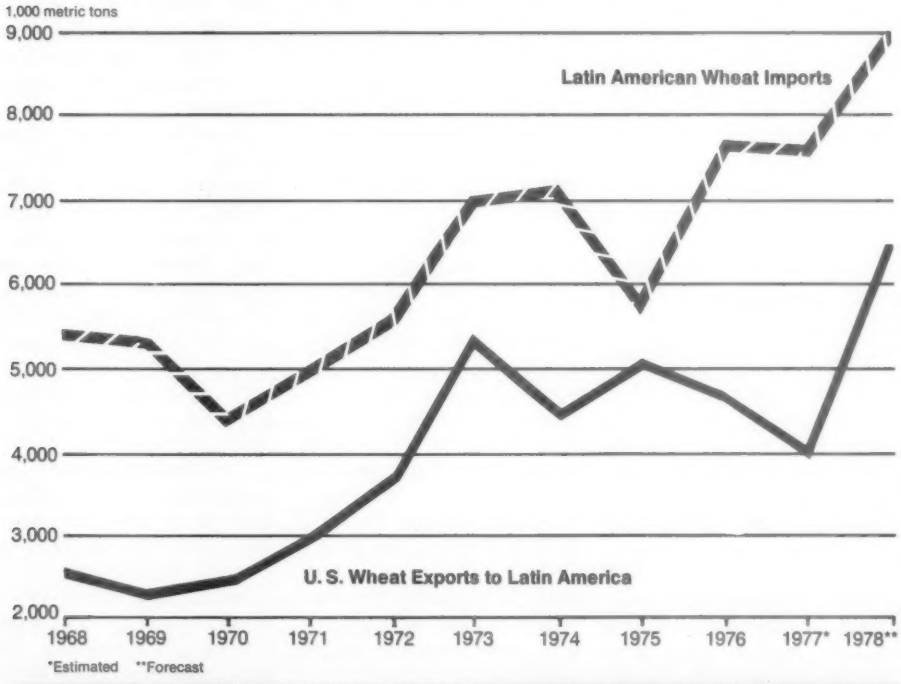
In 1978, Brazil could become one of the largest markets for U.S. wheat exports, with potential sales of 2.0-2.5 million tons, up from 600,000 tons in 1977. Because of smaller Argentine supplies, other South American countries also will provide a large U.S. market, with takings of about 3.0 million tons, compared with about 2.4 million last year.

The United States will continue to supply most of the wheat imported by Mexico and Central America and that volume this year may reach 1.2 million tons while U.S. wheat exports to the Caribbean will probably exceed last year's 350,000 tons.

Latin American wheat imports fell sharply in early 1977 following bumper 1976 crops and the buildup in world export supplies that encouraged reductions in the region's imports and stocks. The trade, however, regained momentum when Mexico reentered the market with large purchases after midyear and imports by Colombia, Venezuela, and the Central American countries rose in response to stronger demand. Although the import volumes of Brazil, Chile, and the Caribbean declined, the region's 1977 wheat imports totaled about 7.6 million tons, just short of the 1976 record.

Last year's larger world wheat supplies also triggered further diversification of the Latin American wheat trade. In early 1977, Argentina expanded exports within South America by drawing from its large 1976 crop. Canada also continued large sales, particularly to Brazil and the Caribbean. In contrast, U.S. wheat exports during January-June 1977 tumbled to 1.3 million tons, compared with 2.4 million during the same 1976 period. Despite recovery later in the year, the U.S. share of the Latin American wheat market continued to decline, falling to 53 percent—the lowest in recent years. But 1978 promises to be a turnaround year for U.S. wheat exports to Latin America. □

Wheat : Latin American Imports and U. S. Exports to Latin America, 1968-78



Brazil Hopes To Become No. 1 Cocoa Producer, Exporter by 1990

By Yehouda E. Yallouz

Brazil, which is moving up, along with the Ivory Coast, to vie for the No. 2 spot in cocoa production, has launched a comprehensive expansion program that is expected to result in the country becoming the world's largest cocoa producer and exporter by 1990.

The value of Brazil's cocoa and products exports in 1977 is estimated at about $750 million—exceeded only by coffee and soybeans as a foreign exchange earner. Earnings from cocoa and products last year dwarfed the previous high of $357 million in 1976.

Future expansion of cocoa production and exports will have far-reaching benefits not only in the producing areas but throughout the country's economy. In addition, consumers of cocoa products around the world also should share in the benefits of larger supplies.

World production of cocoa, the manufactured product from the cacao bean, is expected to rebound in fiscal 1977/78 to 1.48 million metric tons, up 10 percent from the disappointing 1976/77 harvest of 1.35 million tons. Brazil's 1977/78 outturn is expected to rise slightly to 250,000 tons, compared with 234,000 tons in 1976/77. That year Ghana's production was 325,000 tons, while the Ivory Coast produced some 230,000 tons.

The Brazilian Government's rejuvenation program already has produced results and there is considerable potential for increasing production—with a goal of 700,000 tons envisaged by 1990. A new cocoa processing plant, with a yearly grind capacity of 30,000 tons, began operation in January 1977 in Ilheus, Bahia, upping the country's total annual grind capacity to 150,000 tons.

The keystone of Brazil's hopes of overcoming its African competitors as the world's leading cocoa producer and exporter lies in the continued expansion of CEPLAC—Plano de Recuparaca Economico-Rural da Lavoura Cacaueira. CEPLAC was adopted in 1957 in the Government's plan for economic recovery of the cocoa industry.

The current CEPLAC budget is 80 percent financed through a retention tax of 10 percent levied on the dollar value of exported cocoa beans and products. The remainder of CEPLAC's funds come from repayments and interest on loans granted to farmers in preceding years, from grants received from Government agencies, and sale of various services.

In 1976, CEPLAC's expenditures amounted to about US$41 million, of which about 36 percent was allocated to technical programs and the remainder was used for infrastructure programs, general administration, and other programs.

CEPLAC's program comprises five major categories: Agricultural research and experimentation; rural extension and financial assistance; technical training in agriculture and livestock; a special program for the Amazon; and other special programs, including a national program for cocoa expansion in Brazil—PROCACAO.

In 1976, CEPLAC employed 2,362 people, including 320 professionals of whom 32 held masters degrees and six, doctoral degrees.

CEPLAC can also draw upon well-qualified advisors and researchers through special agreements with the Bank of Brazil, the Inter-American Institute for Agricultural Sciences, the British Council (Ministry of Overseas Development-United Kingdom), and with specialists under personal-service contracts.

The Cacao Research Center (CEPEC), the world's largest research institution dedicated to cocoa, occupies an area of about 761 hectares with 120 hectares used for an agricultural diversification program, including livestock, poultry, and various crops.

The comprehensive research program puts emphasis on: Solving the main socio-economic problems affecting crop production in the cocoa region; improving the quality of cocoa; and improving the technology of commercially produced by-products of cocoa and other tropical fruits. Besides cocoa, CEPEC conducts research on rubber, oil palm, coconuts, guaraná, pepper, and cloves.

In 1971, CEPEC—in cooperation with the Inter-American Institute—initiated an ambitious natural resources survey to develop basic information for program planning in the Bahian cocoa region.

This provided a complete land resources and socio-economic survey of that region, comprising an area of 92,000 square kilometers with a population density of 22 inhabitants per square kilometer.

Reports, being prepared under the title "A Socio-Economic Diagnosis of the Cacao Region," will cover: Soils and agricultural potentials, climate, economic geology and mineral resources, agricultural credit, marketing production system, vegetation, business census, human resources, agrarian structure, and rural electrification and communications.

The Genetics Division has undertaken a plant-breeding program to make and evaluate cacao crosses involving parents of local and introduced clones. Hybrid seeds from crosses of the more promising selections for each cocoa region are being distributed free to farmers.

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who plant new areas or renovate old plantations.

In 1976, CEPLAC distributed about 39.5 million seeds in Bahia and Espirito Santo States, and 15.5 million in the Amazon Valley. During 1965-76, a total of 189 million hybrid seeds were supplied to cocoa farmers.

Research on the physiology of the cacao tree has developed considerable knowledge relative to shade, nutrients, and water requirements—and their interrelationships.

Phytopathology investigations are directed largely toward the control of black pod (caused by Phytophthora palmivora), the principal disease affecting cocoa in Bahia. In past years, this disease has accounted for an

Harvesting pods that contain cocoa beans. Brazil, the leading coffee producer, hopes to be No. 1 in cocoa production and exports by 1990. Last year, cocoa ranked behind coffee and soybeans as the country's top foreign exchange earners.

BRAZIL AND CACAO: Sweet Taste of Success

Theobroma, from the Greek "food for the gods," is the genus of trees that produce the seed, from which cocoa and chocolate are derived. The species of prime economic importance is Theobroma cacao. The word "cacao" is the name of the plant and the unmanufactured product from it. On the other hand, "cocoa" is the manufactured product derived from the bean-shaped seed and chocolate is the major commercial commodity.

The tree is native to tropical America, but the gradual expansion of cocoa consumption and its growing economic importance have encouraged the establishment of cacao plantations in other parts of the world with ecological conditions similar to the natural cacao habitat.

In Brazil, the first attempt—without much success—to plant cacao occurred in 1679 in the northern State of Para. In 1746, the first cacao seedling is reported to have been successfully planted in the Fazenda Cubiculo on the Rio Pardo River, municipality of Canavieira, south of the port city of Ilheus in the State of Bahia.

Since then, cacao planting and production have expanded gradually in Brazil. Today, almost five centuries after the discovery of America, the world annually consumes nearly 1.5 million metric tons of cacao beans in the form of chocolate bars, chocolate beverages, cosmetics, drugs, liquor, animal feed, and organic fertilizer.

In 1910, Brazil was the No. 1 cocoa producer with a production of about 484,000 bags (60 kilograms each). Average annual production between 1935 and 1940 rose to about 2 million bags, a level that until 1955, remained unchanged, except for minor fluctuations because of weather. Since 1940, suitable virgin land of cacao plantings has not been available in Bahia and yields of the aging cacao trees were rapidly declining, largely because of poor management. Fertilizer application was inadequate, sporadic or nonexistent, and there was no pest control. Also, no significant research was done to improve yields and resistance to diseases.

The situation was aggravated by the general deficiency or absence of rural credit and extension programs. Among the world's largest cocoa producing countries, Brazil was the last to use available results of scientific research to increase the productivity of its cacao plantations.

The first cocoa research work in Brazil began in 1923 in the small Ministry of Agriculture experimental station of Uruguca in Bahia. In 1953, a second station was opened in Jucari, also in Bahia, but the research results at the two stations were of little help to growers because of the lack of an efficient extension system.

The continued drop in cocoa prices in 1955 and 1958, together with poor harvests and rising labor costs, had created serious financial problems for producers in Bahia. In response to urgent demands from debt-ridden farmers for financial help, a Presidential decree on February 20, 1957, established a credit plan for the economic recovery of the cocoa industry. CEPLAC—the Executive Commission for the cocoa culture plan—was born. But it was not until 1962 that the Government established the present system of financing CEPLAC activities through a retention tax levied on cocoa beans and cocoa-product exports. □

estimated 20-25 percent loss of production. Improved methods of controlling black pod during the exponential phase of the disease have been introduced into the cocoa-producing regions. This has resulted in more economical use of copper fungicide mixtures.

In the Amazon Valley, witches' broom disease (Crinipellis perniciosa) is the principal limiting factor and is currently under intensive study.

The Division of Quality Control of Cacao is responsible for ensuring that all exported and totally consumed cocoa meets Brazilian quality standards and is properly graded and fumigated. The division has two specialized laboratories in Salvador and in Ilheus, whose principal function is to inspect cocoa and its products—such as unsweetened chocolate—for residues and extraneous matter. The quality control division has established final inspection stations for grading and classifying cocoa in the major towns of Bahia's cocoa region, as well as in the port cities of Ilheus, Salvador, Vitoria, Belem, and Manaus. Fumigation is also done at these ports.

CEPLAC's Extension Department (DEPEX) has a network of nine regional offices and 45 local offices, which in addition to regular extension activities, assist farmers in preparing loan applications to authorized banks. CEPLAC's Office of Coordination for Special Program of Credit and Incentives (COPCI) works closely with DEPEX in helping farmers obtain bank loans. As an incentive, farmers are granted a 5-year moratorium on interest payments if the loan is used for renovating cocoa plantations. In 1976, DEPEX approved about US$96.7 million in lines of credit to cocoa producers.

Although the Amazon Valley is the original habitat of cocoa, its possibilities for cocoa cultivation were not fully realized until a recent land-use study was made. The survey located more than 600,000 hectares suitable for cocoa cultivation in the State of Para and an additional 650,000 hectares in the Territory of Rondonia.

Recent studies indicated that world cocoa demand by 1984 will be about 2.3-2.4 million tons. Brazil hopes to gain a large portion of this promising market. Thus in 1975, CEPLAC submitted a plan to the Government for increasing the cocoa production from the current average of 230,000 tons to 700,000 by 1990. This level could make Brazil the world's leading cocoa producer.

The plan calls for establishing new cocoa plantations during the next few years on a total of 300,000 hectares in the States of Bahia and Espirito Santo and in the Amazon Valley, as well as renovating old plantations on 150,000 hectares in Bahia. CEPLAC estimates that production from these areas in 1990 will be about 488,000 tons, while that of the traditional areas, principally in Bahia, will be 220,000 tons.

It is estimated that the implementation of this gigantic program, called PROCACAU, will require an investment up to US$1.2 billion—slightly above the amount used to rejuvenate Brazil's frost-damaged coffee trees in 1975. □

U.S. Wheat Export Sales Up, Corn Sales Heavy

The Office of the General Sales Manager reported the following U.S. export sales of key farm commodities for the week ending February 5 (based on reports from exporters unless otherwise noted):

Wheat: Sales of 933,200 metric tons were the largest weekly total since the week ending November 20. The Soviet Union dominated the buying activity (accounting for about 800,000 tons), with Egypt and several other countries making smaller acquisitions. Sales to unknown destinations declined significantly as destinations were assigned on several prior sales, with the Soviet Union receiving the majority of the changes in destination. Under the daily reporting system, the USSR added purchases (150,000 tons) for marketing year 1977/78 and Iraq bought 200,000 tons (132,000 tons for shipment this marketing year and 68,000 for marketing year 1978/79). An additional 228,600 tons were bought from a foreign seller, reducing outstanding sales for marketing year 1977/78. Activity for marketing year 1978/79 was limited.

Corn: Sales activity continued moderately heavy (1,515,800 tons), with the Soviet Union the dominant buyer. Sales to unknown destinations were substantial, but changes in destination on sales previously reported to unknown destinations sharply reduced the overall total. The Soviet Union was named as final destination on virtually all the destination changes.

Sorghum: Japan continues to be the major market with purchases of 66,400 tons and the destination of 87,500 tons switched from an unknown destination. Israel and several other countries purchased lesser quantities. Exports of 174,000 tons were heavy for the second consecutive week.

Rice: Sales activity declined to about one-third of the previous week's pace with Indonesia accounting for most of the purchases. Exports for the week at 43,000 tons were the highest since December. Iran, Iraq, and Indonesia were major destinations.

Cotton: Sales activity was brisk with volume at the highest level since May 1977 and the largest this marketing year. Significant increases to volume for marketing years 1977/78 and 1978/79 were registered to Japan, Korea, Hong Kong, and Taiwan. Exports were the second largest this marketing year, with 83 percent going to Asia.

Soybeans: Sales (347,000 tons) fell to half the previous week's record high level, with Taiwan (97,000 tons), the European Community (94,000 tons) and unknown destinations (119,900 tons) accounting for most of the new sales. Exports (338,000 tons) were up, with over 72 percent destined for the EC.

Soybean cake and meal: Sales to the EC, other West European countries, and Eastern Europe accounted for most of the 137,900 tons added during the week. Unknown destinations were reduced by 54,700 tons. Exports (165,600 tons) went primarily to European countries and the Philippines, and included an initial shipment to Jordan this marketing year. □

Prepared by USDA's Office of the General Sales Manager. For additional information telephone (202) 447-9209.

Far East Spinners Visit U.S. Cotton Facilities

Prospects for increased U.S. cotton exports were enhanced by an intensive tour of the U.S. cotton belt last October by 25 cotton spinners, representing 11 Asian countries.

Orientation tour objectives were to familiarize participants with methods of growing, harvesting, ginning, marketing, and shipping U.S. cotton. This is the 10th consecutive year Cotton Council International and the Foreign Agricultural Service have jointly sponsored such a tour.

The countries represented on the tour accounted for over 70 percent of U.S. cotton exports in marketing year 1976/77. Trip participants came from Hong Kong, India, Indonesia, Japan, Korea, Malaysia, the Philippines, the Republic of China (Taiwan), Singapore, Sri Lanka, and Thailand. The delegations from the Republic of China and Japan were the largest, with 10 and 5 representatives, respectively.

From Fresno, Calif., the tour proceeded across nine cotton producing States to Raleigh, N.C., where it officially ended. Many of the participants later visited the New York Cotton Exchange.

Size of the cotton belt and variety of U.S.-cotton types and staples made a definite impact on the entire group. Direct contacts with members of the U.S. industry—from producers to shippers—enabled the Far Eastern spinners to better understand the raw cotton industry in the United States.

In the Far West, the group visited a large irrigated cotton farm. At the J.D. Boswell farm in California, great interest was expressed over the workings of the farm's centralized bale/packaging facilities, and the classing room, which depends almost entirely on instruments for classifying cotton.

Visitors from 11 Far Eastern countries witness picking operations on a California cotton farm.

El Paso, Tex. and nearby Las Cruces, N. Mex. offered the visitors an opportunity to examine both Pima and upland cotton.

On the High Plains of Texas, the Plains Cooperative Association demonstrated the Telcot marketing system. This provides ginners and producers with a steady flow of market information on which to base decisions for the sale of cotton by computerized "sealed" bids to merchants in Lubbock, Dallas, and Memphis.

Several seed companies were visited in the Mississippi River Delta. At the private seed companies, and at the Delta Branch Experiment Station in Stoneville, Miss., the group saw new cotton varieties being tested and developed.

Participants showed special interest in textile research being carried on at Texas Tech University in Lubbock, at USDA's Southern Regional Research Center (SRRC) in New Orleans, and at Cotton Incorporated's research facilities in Raleigh. A new type of spinning machine being developed at the SRRC, and twistless yarn being developed at Texas Tech, were studied closely by the visitors.

The importance the visitors attached to accurate cotton classing was demonstrated by questions asked at the classing rooms they visited. Many were related to the degree of reliability of the Government grade (green card) system and how to buy cotton under this grading system.

Classing rooms visited included several operated by USDA, cooperatives, and private shippers. The methods used in classing cotton varied greatly. A few classing rooms used instruments almost entirely, while others were mainly dependent on hand methods.

The spinners expressed three major concerns about U.S. cotton:

- Its prices are not always competitive with those of similar foreign growths.
- Wide fluctuations in its price and supply lead to increased risk for textile mills buying U.S. cotton.
- Certain U.S. growths tend to cause neps in spinning yarn.

Most of the participants said that the textile industries in their respective countries have not yet recovered fully from the worldwide recession of 1975. A few of the delegates complained their mills had bought cotton in the spring of 1977 at high prices and now the mills were losing money owing to a steep drop in cotton yarn prices. Concern was especially expressed about restrictions on textile imports into Western Europe, a major market for Far East textile products. □

By Samuel D. Smith, agricultural economist, Foreign Market Development, Cotton, FAS.

INDIA'S FARM OUTPUT SEEN INCREASING IN 1978

Blessed by a rare series of 3 straight years of average-to-outstanding monsoons, India's 1977/78 agricultural production is expected to rise 5-8 percent above that of 1976/77—its second increase in 3 years.

Moderate production gains this year are seen for foodgrains, fats and oils, peanuts, cotton, coffee, tobacco, cashews, and pepper, while outturns of tea and rice could establish new records. Aided by the favorable monmoons, India's short-term agricultural outlook is not burdened by such traditional restraints as inadequate foreign reserves and foodgrain stocks—in fact, their very abundance reflects low levels of investment and consumer demand. Government efforts to increase the long-term growth rate will hinge on success in three priority areas in the new Sixth Plan (1978-83): Expanding irrigation, increasing power supplies, and speeding the distribution and availability of credits and agricultural inputs, especially raising fertilizer usage above the low levels of the past.

Despite another increase in agricultural production, there is little evidence that the long-term growth rate of foodgrain production will meet national needs resulting from population increases.

India's total trade balance in 1977/78 should register a small surplus for the second straight year, in contrast to the $1.4 billion deficit in 1975/76. Foreign exchange reserves are expected to reach $5.4 billion by April, the beginning of the Indian fiscal year.

Export earnings from agricultural and allied products in 1976/77 remained almost unchanged at $1.68 billion. Offsetting declines in sugar, basmati rice, raw jute, and some oilseeds were significant gains in export value for oilcakes (160 percent), coffee (71), meat and preparations (63), fish (42), peanuts (31), tea (24), and cashew kernels (10).

Value of farm imports dropped 18 percent to $1.42 billion as imports of foodgrains and cashew nuts fell. However, the import value of vegetable oils rose sixfold; raw cotton, 359 percent; and dairy products, 44 percent. After averaging about 5.5 million metric tons a year during 1973-76 and peaking at 7.4 million tons in 1975, foodgrain imports fell to 6.5 million in 1976 and a mere 415,000 tons last year. India's withdrawal from world grain markets coincided with lagging domestic production of cotton and peanuts, leading to a sharp upswing in imports of raw cotton and edible oils.

The United States continues to be India's leading trading partner, accounting for about 11 percent of India's exports and 21 percent of its imports in 1976/77. Other major trading partners were Japan, Iran, the United Kingdom, and the USSR. In contrast with India's net trade surplus with the United States of $28.9 million during January-November 1977, India logged an agricultural trade deficit of $99.6 million—an improvement from the average deficit of $594 million for 1975 and 1976.

Foodgrains. India's 1977/78 foodgrain production, consisting of kharif (fall and winter harvested crops) and rabi (spring and early summer crops), is estimated at 116-121 million tons, substantially higher than the 1976/77 outturn of 111.57 million, but marginally lower than the record 121.03 million in 1975/76.

Last summer's monsoon rains, which were generally consistent, prolonged, and evenly distributed, provided favorable growing conditions for kharif crops, especially rice. Fertilizer usage and area covered by high-yielding varieties (HYV) of rice were expanded, but prospects were tempered by November's two cyclonic storms in the coastal regions of Tamil Nadu and Andhra Pradesh. Production losses caused by the storms are estimated at about 1 million tons. The current estimate of the 1977/78 rice crop is a record 49.5 million tons (milled basis), compared with 42.8 million in 1976/77 and the previous high of 48.7 million in 1975/76. Total 1977/78 kharif outturn, including coarse grains, is estimated at 70-73 million tons, up from 66.62 million a year earlier and close to the 1975/76 record of 73.89 million.

The current outlook for wheat and other rabi crops is highly favorable. The generous 1977 southwest monsoon, good subsoil moisture conditions, replenished reservoirs, adequate supplies of chemical fertilizers, and more use of HYV seeds point to an increase in 1978 rabi production to 46-48 million tons, including 29 million of wheat, compared with a 1977 outturn of 44.95 million tons, (including 29.08 million tons of wheat) and 47.15 million tons in 1976.

In what represents a major economic decision, the newly elected Janata Party Government has removed all zonal restrictions on movement of wheat and rice in the 1977/78 marketing seasons (April-March for wheat and October-September for rice). By December, domestic procurement totaled 5.2 million tons of wheat and 2.2 million of rice, compared with 6.6 million for wheat and 1.9 million for rice in the same 1976 period.

No foodgrain imports are anticipated this year as Government-owned stocks stood at about 17 million tons in December 1977, with a decline to about 15.5 million tons expected by April 1978.

Government efforts to export surplus foodgrains resulted in arrangements providing for: (1) Repayment in kind of 1.5 million tons of wheat for the balance of a 2-million-ton wheat loan by the Soviet Union in 1973; (2) commercial sales of 50,000 tons of rice to Indonesia; (3) interest-free loan of 100,000 tons of wheat flour to Vietnam; and (4) supplying 1,000 tons of grain sorghums to Yemen through the UN Development Program.

Fats and oils. The oilseeds and edible oils outlook, for 1977/78 is somewhat better than the previous year's. The monsoon diminished gradually with favorable distri-

bution in the western and central oilseed-producing areas. However, the monsoon withdrew almost completely during the second half of September, resulting in a lack of moisture during harvesting of the peanut and sesame crops. The 1977/78 production of major oilseeds is estimated at 12.1 million tons—8 percent larger than that of 1976/77, but about 10 percent short of the record 1975/76 output of 13.5 million tons.

Peanut area this season is expected to be around 7.0 million hectares, a gain of about 100,000 hectares, with production set at 5.5 million tons in shell, an increase of about 4 percent. The 1977/78 production estimates in tons for other major oilseeds (with 1976/77 output in parentheses) are: Sesame, 420,000 (404,000); rapeseed and mustard, 2.05 million (1.56 million); flaxseed, 500,000 (431,000), castorseed, 225,000 (215,000); copra, 890,000 (865,000); cottonseed, 2.3 million (2.2 million); and safflower 250,000 (217,000).

The country's worsening shortage of vegetable oils in recent years has led to rapidly rising imports that could reach 1 million tons in 1977/78 (October-September). In 1976/77, India's purchases of vegetable oils are estimated at 900,000 tons with about 770,000 tons being received at ports—in stark contrast to just 29,000 tons in 1974/75 and 200,000 in 1975/76. The United States shipped more than 250,000 tons of soybean oil to India in 1976/77 and exports of about 200,000 tons are expected for 1977/78.

As a result of the shortage of edible oils and their high domestic prices, the Government has banned for this year exports of peanuts, which have been a strong foreign exchange earner. Only 50,000 tons of handpicked and selected peanuts were allowed for export in calendar 1977.

The export market for meal and oilcake has been attractive with the export quota for peanut meal, placed at 750,000 tons last year, likely to be raised to 800,000 tons this year. But, so far, only a 250,000-ton quota has been released.

On January 27, 1978, the United States and India signed a P.L. 480, Title I, agreement for the sale of $27.8 million worth of U.S. soybean/cottonseed oil.

Cotton. India is the world's fourth leading cotton producer. Although estimates for the 1977/78 crop have been lowered slightly to 5.4 million bales (480 lb net), this represents an increase of about 10 percent from the previous year's level. Area expanded about 7 percent to 7.3 million hectares.

Cotton consumption in 1977/78 is forecast at 5.6 million bales, compared with 5.7 million in 1976/77, and to fill the gap between domestic output and mill consumption, the Government will have to import 300,000 to 500,000 bales of raw cotton. Mills also will use about 700,000 bales of manmade fiber, of which about 450,000 bales will be imported.

In the early part of 1977, raw cotton prices moved higher because of the short world harvest the previous year and depleted stocks. Under pressure of the Indian Cotton Mills Federation, the Government approved imports of more than 1 million bales—with nearly one-third of these coming from the United States.

Jute and kenaf. Production in 1977/78 (July-June) is expected to dip 4 percent to 6.8 million bales (180 kilograms each), including 5.2 million bales of raw jute and 1.6 million bales of mesta (kenaf). Given this reduced crop, dim import prospects, and low carryover stocks, an upward pressure on raw jute prices was inevitable in 1977/78. Although the supply/demand balance this season would warrant the import of 700,000 bales of raw jute, the Government is considering imports of only about 200,000-300,000 bales.

Sugar. After emerging as the country's top agricultural export earner ($558 million) in 1975/76, sales tumbled 69 percent to $170.1 million in 1976/77—still the fourth leading foreign exchange earner. Export volume in 1976/77 fell 52 percent to 580,000 tons. Despite a better supply situation this season and an adjusted quota of some 650,000 tons under the new International Sugar Agreement, the Government is unlikely to vigorously pursue exports without an appreciable upswing in prices.

Tea. Production in 1977 is estimated at 550,000-560,000 tons, compared with 512,000 tons in 1976. Increased output resulted largely from favorable weather and greater fertilizer use, especially urea. Two straight record crops and high world prices could push earnings from this traditional export above the farm-export record set by sugar 2 years ago. Tea became India's top agricultural export earner in 1976/77 by bringing in $332.8 million, up from $278.7 million a year earlier.

Coffee. Outturn in the 1977/78 (October-September) season is forecast to rise about 5 percent to 112,500 tons. Domestic consumption this season is estimated at 52,000 tons, leaving about 60,000 tons for export. Indian coffee, continuing to have good demand on world markets because of its high quality, contributes significantly to foreign exchange earnings, ranking fifth ($129.6 million) among India's farm exports in 1976/77.

Tobacco. Output of unmanufactured tobacco in 1977/78 should range between 420,000 and 440,000 tons, compared with 414,200 tons in 1976/77. Available data indicate that exports of unmanufactured tobacco during January-June 1977 were 48,160 tons, 13 percent lower than the comparable 1976 period. However, increases from 5 to 21 percent in the minimum export prices were responsible for higher earnings, whose total in calendar 1977 is projected at $129 million, compared with about $109 million in 1976.

Cashews. Production continues to increase slowly with the 1977 output estimated at 150,000 tons, up 2 percent from that of 1976. Imports of raw cashews last year fell 14 percent to 64,000 tons while exports of cashew kernels declined 32 percent to 35,200 tons during January-November 1977. Of these exports, 8,401 tons went to the United States, 17,515 tons to the USSR, and 2,804 tons to Japan.

—Based on report from Office of U.S. Agricultural Attaché, New Delhi

Fresh-Cut Flowers: Colombia's $35-Million Export Industry

By Alfred R. Persi

Colombia's thriving fresh-cut flower industry was established in the early 1960's to help break away from the country's long dependence on a single export crop—coffee. Although coffee continues to account for the major share of Colombia's export earnings, cut flowers have become a significant generator of foreign exchange. Products such as chrysanthemums, pompons, and carnations find ready consumer acceptance in the United States and other export markets.

Colombia's cultivation of fresh flowers for export—mostly chrysanthemums, pompons, and carnations—since 1964 has grown from scratch into a $35 million industry employing 40,000 workers.

Virtually the entire output of this thriving new industry is for export. In 1976, 84 percent of the industry's total export value went to one country—the United States—but efforts were being made to develop new markets in Europe and Latin America.

Colombia's flower industry had its roots in Francisco Waldorf's planting in 1964—with seed supplied by a New York distributor—of carnations on half a hectare in the Bogotá Savanna.

During the following year, Edgar Wells Castillo—trading as Flores Colombianas—started production of chrysanthemums and carnations on 7 hectares also in the Bogotá Savanna.

By the end of 1965, Colombia's exports of fresh-cut chrysanthemums and carnations had begun, and shipments—of which 20 percent went to the United States—for that year were valued at a modest $20,000.

By 1968, eight producer-exporter organizations had annual exports valued at $277,000, 51 percent of which were shipped to the United States. Two years later, the number of organizations had grown to 31 and the value of their exports had rocketed to $976,000, of which the U.S. share was 78 percent.

In 1970, the Colombian Association of Flower Exporters—Asocolflores—was founded to promote overseas fresh-cut flower sales. About a third of Colombia's cut-flower producers are members of the association, which does not enter directly into export sales.

The number of producers and the value of their export sales have continued to expand in the 1970's, and today there are more than 95 producers involved in exports.

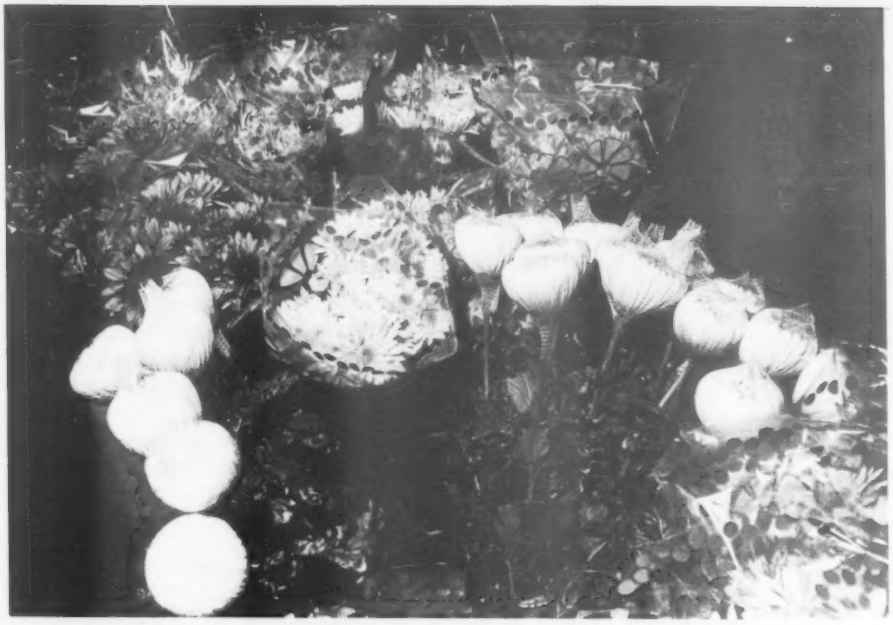
The United States since 1966 has been Colombia's most important export market for cut flowers. These sales have grown without interruption, and during the first 9 months of 1977 rose 51 percent (about $8 million) over shipments during the corresponding 1976 period.

The steadily mounting volume of shipments of cut flowers from Colombia to the United States generated concern among U.S. producers, and the Society of American Florists in March 1977 petitioned the U.S. International Trade Commission (ITC) to investigate the effect of these imports on the U.S. industry. Following its investigation, the ITC reported that imports were not arriving in such volume as to injure or threaten to injure the U.S. industry.

However, given the importance of fresh-cut flowers in Colombia's trade with the United States, the Colombian Ministry of Agriculture met with representatives of Asocolflores soon after the start of the ITC investigation and, after a study of the U.S. and European markets for Colombian flowers, issued these proposals:

- Signing of a protocol by all Colombian flower producers and exporters for suspending expansion of carnation and pompon cultivation and limiting exports to what the market will bear;
- Temporary withholding of available lines of credit for increasing and investing in new carnation and pompon crops;
- Establishing a line of credit for flower diversification;
- Colombian Government support for all Asocolflores

The author is U.S. Agricultural Attaché in Bogotá.



Clockwise from top left: When color first appears in chrysanthemum buds, nets are placed to retard opening; mums growing under polyethylene sheeting in the Bogotá Savanna; preparing a shipment of mums for export.

efforts to develop new foreign markets and to increase demand in existing ones for Colombian fresh-cut flowers. Also, a Government-Asocolflores working group was formed to program and channel credit lines for flower diversification and to analyze projects for expansion and establishment of new flower markets.

The Government had reduced its export tax credit on fresh-cut flowers about 3½ years ago from 15 percent to 0.1 percent during a U.S. Treasury countervailing duty investigation, which was then suspended. This credit has been retained at that level, even though export credit rates were raised moderately for other minor exports after reviews of the system in September 1976 and 1977.

Of the total 520 hectares assigned to production of cut flowers in Colombia, area per grower ranges from about 0.5 hectare to more than 30. Most growers have small operations, concentrating on one type of flower.

About 23 percent of land cultivated to flowers consists of plots larger than 5 hectares, and the larger growers produce up to three or four types of flowers. Production of other crops is rare.

Flowers are grown under polyethylene sheeting or glass roofs and generally no walls. About 91 percent of production is in the Bogotá Savanna because of the favorable climatic conditions (moderate temperatures and even amounts of light throughout the year). The remaining share is in the Departments of Antioquia and Valle. The Departmental capitals of Medellin and Cali—Colombia's second and third largest cities—are situated in these districts.

The Colombian Government Agricultural Institute (ICA) estimates the share of cut-flower production going into export at 85 percent each for carnations and pompons and 90 percent for chrysanthemums.

About 80 percent of statice production moves into export, but only 10 percent each of rose and daisy output goes into overseas trade.

Production of fresh flowers in Colombia is a highly labor-intensive industry. For all flowers, labor represents an average of about 50 percent of total costs.

The fresh flower industry, in turn, is an important source of employment for the country. One large Bogotá Savanna producer employs 400 workers—60 percent women and 40 percent men.

According to Asocolflores, labor costs in 1977 of a typical carnation grower showed a total labor cost per person per day equal to $6.50, based on a 270-day working year.

On average, Asocolflores estimated about 11 workers are employed per hectare of carnations produced. In January 1977, there was an increase of 14 percent in the Colombian minimum wage, a 5 percent increase in August 1977 and a 26 percent increase in November 1977, at which time the minimum wage per day in the major Colombian cities amounted to the equivalent of $2.10.

These boosts are reflected in higher labor costs for producers, since flower raising is not a family-type operation in Colombia but is an industrial effort dependent on hired labor.

About 6 months are required to produce carnations for export, and about 4 months each for chrysanthemums and pompons. Packing for export is done on the producer's premises.

Under Government regulations, each producer for export must have at least one full-time staff agronomist. Plant-health inspection is conducted by ICA personnel at production sites and at the time flowers are loaded for export.

All flowers for overseas shipment are subject to Government export licensing. The bulk of the country's flower exports move through Bogotá's El Dorado International Airport to Miami, where they are transshipped to other U.S. cities. □

Colombia: Fresh-Cut Flower Exports, 1965-77

Year	Total	To U.S.	U.S. share
	1,000 dol.	*1,000 dol.*	*Percent*
1965	20	4	20
1966	80	59	74
1967	128	89	70
1968	277	140	51
1969	373	223	60
1970	976	765	78
1971	1,776	1,533	86
1972	3,077	2,635	86
1973	8,388	7,430	89
1974	14,474	10,858	75
1975	19,500	17,372	89
1976	26,800	22,586	84
1977	35,000	30,000	86

Sources: 1965-1974: Colombian Department of Statistics data; 1975/1976: Total exports, Asocoflores data; exports to U.S., U.S. Census Bureau import data.

World Cotton Area May Decline In 1978/79

The world's cotton area for 1978/79 is forecast by the U.S. Department of Agriculture at 31.4 million hectares, off 4.5 percent from 32.9 million hectares being harvested during the current season.[1] This reduction is ascribed chiefly to the substantial decline in cotton prices from year-earlier levels.

Foreign cotton area for 1978/79 is forecast at 26.6 million hectares, down 3.5 percent from this season's 27.5 million. The largest decreases in area are anticipated in Guatemala, Mexico, Turkey, Egypt, and Colombia.

Only a few countries, including India, Pakistan, and Peru, expect to expand their plantings. The USSR may have a small increase according to plan. U.S. producers indicated on January 1 that they intend to plant about 7 percent less upland cotton than in 1977/78.

The lower prices received for 1977/78 crop cotton, particularly in relation to rising costs, and static demand are discouraging plantings abroad. Northern Europe Index 'A' cotton prices averaged more than 86 cents per pound in March 1977, but dropped to an average of 58 cents in November and since then recovered only modestly to 64 cents in January 1978. The bumper 1977/78 cotton crop, estimated at 65.3 million bales (480 lb net), is expected to exceed consumption for the first time in 3 years, and result in some rebuilding of stocks, which had fallen to the lowest level in many years.

Mexico's 1978/79 cotton area may decline 30 percent after expanding 56 percent in 1977/78. El Salvador and Nicaragua plan to reduce area 18 and 12 percent, respectively. Turkish producers are likely to cut back cotton area by about 20 percent. Egypt is expected to reduce plantings around 17 percent, partially as the result of unsatisfactory yields.

Favorable Government policies for export crops in Peru will likely result in an increase in cotton area of 10 percent. India is continuing efforts to increase cotton production, and a 4 percent larger area for 1978/79 is expected.

The three largest cotton producing countries, the United States, the Soviet Union, and the People's Republic of China (PRC), accounted for 58 percent of 1977/78 world cotton production. For 1978/79, the Soviet Union will likely show a slightly larger area; the PRC is expected to keep area unchanged.

Actual plantings could vary from these estimates due to change in prices between now and seeding, availability of inputs, government policies, and weather. Assuming average yields, foreign cotton production for 1978/79 is projected to drop about 4 percent to 48-50 million bales, compared with 50.8 million this season. □

[1] **For more details, see the Foreign Agricultural Service Cotton Circular to be issued later this month.**

Australia's Dairy Exports To Decline

Australia's 1977/78 dairy export sales will fall slightly below those of 1976/77, largely as a result of smaller supplies available for export. This decline follows the Government's push to reduce unprofitable export sales, the U.S. Agricultural Attaché in Canberra reports.

Total value of Australia's exports of dairy products during the current marketing year (July-June) is expected to dip 5 percent to about $A194 million ($A1= US$1.1312 in early December 1977) as export volume drops for practically every major dairy product except dried whole milk.

In 1976/77, Australian dairy sales abroad were $A 204.5 million, nearly the same as the previous year's.

Although the Australian dairy industry has declined in importance in recent years, it still remains as one of the country's larger farm industries, providing about 8 percent of rural income. Dairy exports bring in about 5 percent of the nation's total export earnings. In 1975/76, there were 27,500 enterprises classified as dairy farms, but because of cost/price pressures, an average of 2,500 farmers per year have left the industry since 1970. The Government's target is to reduce dairy production to cover domestic needs while leaving enough margin for profitable exports.

Another step toward this goal—Phase II of production restraints based on producer entitlements—is now under consideration for possible implementation in July 1978.

The most significant development in Australia's 1977/78 dairy exports is the doubling of sales of whole milk powder, whose estimated export value will exceed the combined export values of butter and cheese for the first time. Total exports of whole milk powder are estimated at 75,000 metric tons worth about $A60 million, compared with 37,500 tons valued at $A31.9 million in 1976/77. Venezuela is expected to take about 50,000 tons in 1977/78 and other important buyers are Taiwan, Sri Lanka, and Malaysia.

Cheese shipments, the No. 1 dairy export earner in 1976/77, have dropped sharply so far this year, and are likely to reach only 40,000 tons valued at about $A46 million in 1977/78, compared with 52,000 tons worth $A56 million a year earlier. Japan, expected to remain the principal market, is likely to buy less than the 28,772 tons bought in 1976/77. Other markets are the Middle East and the United States, with 1977/78 U.S. imports of Australian cheese remaining near the 1976/77 level of about 3,000 tons—in accord with U.S. quota levels.

Australian butter sales abroad are predicted to fall about 18 percent to 28,000 tons in 1977/78, but export prices are rising. Value of butter exports this year is placed at nearly $A34 million, down from $A38.1 million a year earlier.

Casein exports are forecast to slip 3,500 tons in 1977/78 to 15,000 tons worth $A15 million, with early estimates of sales to the United States put at between 12,500 and 14,000 tons. The c.i.f. price of casein in the United States rose to US$1.43 per kilogram in early December 1977 and the Australian dairy industry looked at the United States as a potentially strong market. However, a proposal that would have permitted U.S. manufacturers to substitute casein for nonfat dry milk (NFDM) in ice cream mixes has been turned down; thus, the export outlook for Australian casein has diminished somewhat. Australia's production costs of casein are well below those in the United States, where the production process would require high-cost raw material —liquid skim milk that can be converted to NFDM.

Exports of skim milk powder in the current marketing year are estimated at 38,000 tons, only one-third of those a year earlier. Export earnings are expected to tumble from $A36 million to $A16 million, despite a substantial rise in export prices. Australia will ship 10,000 tons of stock feed grade skim milk powder to Japan as the last installment of a contract signed in 1975, when Australia agreed to sell 50,000 tons to Japan at $A270 per ton—well below current world prices. Presently, it is not certain how the Australian Dairy Corporation will meet this obligation. One possibility is that the Government will underwrite the price difference through the new plan. □

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Key to Agricultural Stability . . .

agree to implement them. Problems of supply and demand are global in scope, and a global effort is needed to solve them.

Some of the work needed to create such mechanisms is being done at the Multilateral Trade Negotiations in Geneva and in other forums such as the upcoming negotiations of the International Wheat Council, which will be conducted under auspices of the United Nations Conference on Trade and Development (UNCTAD). But in order really to achieve this aim, we need to develop a better understanding of existing food production and marketing systems to determine how we might better coordinate them in making the necessary adjustments to ever-changing world agricultural conditions.

The United States has recently proposed an OECD project that would be a good start. Our proposal calls for a survey of extension services, or agricultural advisory services as they are called in many countries, in the OECD countries. This survey would identify how extension services could interrelationship of agriculture with other sectors of the improve their services to agricuture in light of a growing economy.

Another U.S. proposal for cooperative research on food production and food preservation was first submitted 2½ years ago, more carefully elaborated during the following year, and is still awaiting effective action. Greater coordination of the long-range basic research on food production and food preservation is essential if we are to continue to meet world food needs. Such coordination would significantly improve the effective use of the limited financial, physical, and scientific personnel resources of the member countries.

In addition, the United States supports the following five items and hopes that these might be a followup to this Ministerial meeting:

- To encourage regular analysis of agricultural policy formulation and implementation within member OCED countries.
- To make greater collective use of market analyses and forecasts in order to anticipate possible difficulties and find means to deal with them.
- To work together in developing a common conception of what a food policy should consist of—what the objectives of such a policy should be and how those objectives might be best realized.
- To step up our efforts to improve the functioning of markets and to insure a more orderly development of international trade—and when doing so, take into account the special needs of the developing countries.
- To analyze the interdependence of agricultural policy actions—at both domestic and international levels—with policy actions in other sectors of our lives.

Admittedly, we have our work cut out for us, but it is work we cannot afford to neglect. Should we do so, the result would be an agricultural environment of wild swings in production and prices, and we all will be the losers. Determined pursuit of these objectives will result in a greater understanding of this environment, and would suggest the means to create a new level of stability in world agriculture and trade—to the advantage of all nations. □

International Meetings—March

Date	*Organization and location*
To be set	UNCTAD Preparatory Meeting on Meat—Geneva.
6-10	Economic Commission for Europe's Committee on Agricultural Problems—Geneva.
6-10	FAO Committee on Food and Nutrition Policies—Rome.
6-10	FAO Intergovernmental Group on Hard Fibers—Rome.
13-17	FAO Intergovernmental Group on Rice—Rome.
17	FAO Fertilizer Industry Advisory Committee of Experts—Rome.
28-Apr. 3	Second UNCTAD Preparatory Meeting on Cotton—Geneva.